CLAIMS

What is claimed is:

5   1.   The method of constructing an electronic system from a set of components comprising:

selecting one or more key system parameters,

creating a model of the system based on component performance,

performing a sensitivity analysis on the model to identify critical components

10   and parameters of those components required to meet the key system parameters,

performing tests on the identified critical components to measure the identified

parameters producing a set of measurements for each critical component,

associating the set of measurements with the component,

assembling the system using the measurements associated with the

15   components.

2.   The method of Claim 1 where assembling the system using the measurements associated with the components further comprises:

selecting individual components for assembly into a system based on the

20   associated measurements such that the resulting system meets the key system parameters.

3.   The method of Claim 2 where associating the set of measurements further comprises storing the set of measurements in a memory which is part of the

25   component.

4.   The method of Claim 2 where associating the set of measurements further comprises storing the set of measurements in a memory which is attached to the component.

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5.   The method of Claim 2 where associating the set of measurements further comprises storing the set of measurements as an entry in a database, and

associating the database entry with an identifier for the component.

6.   The method of Claim 5 where the identifier for the component is a serial number.

7.   The method of Claim 5 where the identifier for the component is a sequence number.

8.   The method of Claim 5 where the identifier for the component is a location in a component carrier.

9.   The method of Claim 2 where associating the set of measurements further comprises grouping components according to measurements.

10.   The method of Claim 1 where assembling the system using the measurements associated with the components further comprises:
        assembling the system from a set of components,
        retrieving the measurements associated with each of the set of identified critical components, and
        calculating system calibration coefficients using the retrieved measurements.

11.   The method of Claim 10 where associating the set of measurements further comprises storing the set of measurements in a memory which is part of the component.

12.   The method of Claim 10 where associating the set of measurements further comprises storing the set of measurements in a memory which is attached to the component.

13.   The method of Claim 10 where associating the set of measurements further comprises storing the set of measurements as an entry in a database, and
        associating the database entry with an identifier for the component.

14.   The method of Claim 13 where the identifier for the component is a serial number.

15.   The method of Claim 13 where the identifier for the component is a sequence number.

16.   The method of Claim 13 where the identifier for the component is a location in a component carrier.

17.   The method of Claim 10 where associating the set of measurements further comprises grouping components according to measurements.